# GOVERNMENT OF INDIA
# ATOMIC ENERGY
# LOK SABHA

UNSTARRED QUESTION NO:499
ANSWERED ON:26.07.2000
SAFETY OF NUCLEAR WORKERS
A. KRISHNASWAMY;SURESH RAMRAO JADHAV (PATIL)

**Will the Minister of ATOMIC ENERGY be pleased to state:**

(a) whether the Government are aware that workers employed in Indian nuclear reactor projects are exposed to high level of tritium, a radio-active isotope of hydrogen that triggers health hazards including cancer; and

(b) if so, safety measures taken/proposed to be taken by the Government to save the workmen from the ill effects of Tritium?

## Answer

THE MINISTER OF STATE IN THE DEPARTMENT OF ATOMIC ENERGY (SMT. VASUNDHARA RAJE)

(a) All the operating Nuclear Power Reactors in India have achieved near total compliance with the limits prescribed by the Atomic Energy Regulatory Board (AERB). So far noemployee has been affected by any health hazard including cancer due to exposure to Tritium or any other radiation. Epidemiological studies carried out by Tata Memorial Centre indicate that the cancer incidence among the workers or their family members is similar to the relevant control group of population.

(b) In our Nuclear Reactors, the process systems and components containing heavy water are designed and engineered to international standards in such a manner that, during normal operation there is no significant out-leakages of Tritium laden heavy water into the working environment. In addition, adequate instrumentation is provided to detect even very small leakage at the incipient stage itself. Also a number of Tritium air monitors are provided to detect the presence of Tritium in air, so that mitigatory actions can be taken, if required. Whenever plant workers have to perform main- tenance work in areas having even low levels of Tritium activity, they are provided with protective clothing/ equipment such as ventilated plastic suits and fresh air breathing respirators. All the plant workers are medically examined periodically to ensure that radiation doses to the workers are below the regulatory limits. These medical examinations have not so far revealed any adverse health effects on workers due to exposure to Tritium or any other radiation.